UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,092	10/19/2001	Heiji Kato	29385-68773	1054

7590 04/27/2004

Barnes & Thornburg
11 S. Meridian Street
Indianapolis, IN 46204

EXAMINER	
LIN, KUANG Y	

ART UNIT	PAPER NUMBER
1725	

DATE MAILED: 04/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/040,092	KATO ET AL.	
	Examiner	Art Unit	
	Kuang Y. Lin	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 8-13, 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood and further in view of either JP 9-29,393 or JP 9-29,394.

> Wood substantially shows the invention as claimed except that in his cleaning device each brush is not moved independently from the other. However, both JP '393 and '394 show to move each brush independently from the other in a roll

clearing process such that to clean the roll while not to damage the roll surface. It would have been obvious to move each brush of Wood independent from the other in view of the advantage.

4. Claims 4-7, 14, 15, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of either JP 9-29,393 or JP 9-29,394 as applied to claim 1 above, and further in view of either Sadamitsu or Itaya et al.

Although Wood does not shows to provide the elongate scraper blade having shape leading edge for scraping material from the brush. However, Wood does disclose that a "beater bar" may be used to be struck by the brush thereby causes debris adhering to the brush to be thrown free (col.4, line 35+). Further, both Sadamitsu or Itaya et al show the use of blade like flicker for dislodging the foreign material from the brush. It would have been obvious to provide the brush of Wood with the blade like scraper of the secondary references to facilitate the cleaning process. With respect to the material for making the brush and the scraper, it would have been obvious to use an appropriate material for those component for properly removing debris from the roll and the brush and taking consideration of the service life thereof.

5. Applicant's arguments filed April 12, 2004 have been fully considered but they are not persuasive.

a. In page 5, last paragraph of the remarks applicant stated that there is no suggestion or motivation to combine Wood with either JP '393 or JP '394. However, since both JP references teach to provide roll 5 and roll 6 with different

diameter of wires. JP references further teach to separately operate the rolls 5 and 6 by applying a larger pressure at roll 5 at the beginning of the casting process and a smaller pressure to roll 6 at the subsequent stage of the casting process to prevent the brushes from damaging the cast roll, it would have been obvious to also separately operate the rolls 18 and 20 of Wood in view of JP references.

b. In page 5, last paragraph of the remarks applicant further stated that JP '394 expressly provides that "the same roll may be employed at both stages." However, after reading the entire translation, the statement in page 16, line 10-12 of JP '394 translation is that both roll**s** can be employed at the initial stage but only one roll may be employed at both stages.

c. In page 6, 1st complete paragraph of the remarks applicant stated that none of the cited references disclose to employ the initial or sweeper brush to contact the casting rolls ahead of the second or main roll. However, as the concept of JP references is adapted in Wood, the brush rolls 18 and 20 will contact the casting rolls at separate stages. Further, the invention as claimed is directed to apparatus. Nevertheless, the arguments involve a process step. Thus, the argument is moot.

d. In page 6, 2nd complete paragraph of the remarks applicant stated that the sweeper brush JP references do not rotate in a direction opposite to the surface movement of the casting roll. However, it is noted that brush roll 18 of Wood shows that feature. In response to applicant's arguments against the references

individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

e. In page 6, last paragraph of the remarks applicant stated that claimed sweeper brush engages the casting roll "near the beginning and end of each casting run" and JP references do not show that feature. However, again the claimed invention is directed to a casting apparatus. Nevertheless, the argument is directed to a process step. Thus, the argument is moot.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuang Y. Lin whose telephone number is 571-272-1179. The examiner can normally be reached on Monday-Friday, 10:00-6:30,.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas X Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kuang Y. Lin
Primary Examiner
Art Unit 1725

4-23-04